

REMARKS/ARGUMENTS

Claims 1, 3 - 7, 10, 16 - 20, 25 and 27 - 30, 32 and 34-39 are pending in the application.

Claims 2, 9, 26, 31 and 33 have been cancelled.

Claims 1, 3, 4, 10, 16, 25, 34 and 37 have been amended.

Claim 1 has been amended to include the subject matter of claim 2. Claims 2 and 9 have been cancelled. Claim 25 has been amended to include the subject matter (modified) of claim 26.

The rejection of claims 1, 16, 25, 30, 31 and 35 under 35 U.S.C. §103(a) as being unpatentable over Hill et al (US 6,775,256) (hereinafter Hill) is respectfully traversed.

As the title infers, the present invention is directed to power pooling and network downstream data transmission involving transmitting data packets from a hub to multiple users using limited power transmission. The power transmission requirement for each user is established and the data packets are grouped or pooled for composite bursts within a fixed transmission power hub. Figure 3 illustrates this power pooling and three composite power bursts 1, 2, 3. The selected data packets are transmitted in the composite bursts (pooled power) within the limited power transmission and repeating the compositing until all the data packets are transmitted. The power transmission requirements for each user is established including determining the signal to noise ratio in the transmission link to each user whereby the requisite transmission power for the data packets can be determined for a

desired level of reception. These data packets then are pooled or composited for transmission.

Hill does not do this. In Hill, according to the abstract and throughout the specification, the transmit power required by the remote terminals to transmit packets is "based on the candidate set." In Hill's Summary of the Invention, column 2, lines 65 et seq he states:

...a base station serving at least one remote terminal, the method comprising the steps of: selecting a candidate set of packets: based on the candidate set calculating transmit powers required to transmit the packets; modifying the candidate set in response to the calculated transmit powers; and scheduling the packets of the candidate set for transmission.

Likewise, in column 3, lines 23 et seq:

...means for calculating transmit powers required by remote terminals to transmit the packets based on the candidate set....

At column 4, lines 45 et seq, Hill states:

The scheduler 231 comprises means 233 for selecting a candidate set of packets. These means communicate with means 235 for calculating transmit powers required by remote terminals to transmit the packets based on the candidate sets.

In applicants' system, the selection of packets summed is done in a manner so that the composite burst has a cumulative power that DOES NOT EXCEED THE LIMITED TRANSMISSION POWER. It is not clear from the Hill disclosure whether the packet scheduler and method taught by Hill is based on the limited transmission power of the hub, for example.

The language of claim 1 of Hill aptly sets forth the difference:

a scheduler serving two or more cells selecting a candidate set of packets from among said two or more cells;

based on the candidate set, calculating transmit powers required to transmit the packets;

modifying the candidate set in response to the calculated transmit powers;.... [Emphasis added.]

Clearly, the Hill disclosure does not teach or suggest applicants' power pooling technique. It does not teach or suggest selecting data packets for transmission in a composite burst with cumulative power for the selected packets not exceeding the limited transmission power and transmitting the selected data packet in a composite burst within the limited transmission power.

Claims 1, 16, 25, 30, 31 and 35 are patentable over Hill, and further and favorable action is respectfully requested.

In connection with the Examiner's reference to claim 35 and the term "simultaneously transmitting" and the Examiner's treating this limitation as "an intended use" is not understood. Applicants respectfully submit that the phrase "simultaneously transmitting" is synonymous with applicants' use of the phrase "power pooling" in the title of the invention. Applicants respectfully submit that the Examiner has disregarded an important limitation of applicants' claims, and applicants respectfully request that it be considered in determining patentability.

The rejection of claims 3-7, 9-10, 17-20, 27-29, 32-34, 36 and 39 under 35 U.S.C. §103(a) as being unpatentable over Hill et al (US 6,775,256) (hereafter Hill) in view of Ruszczyk (US 6,205,150) is respectfully traversed. Hill fails to teach or suggest the invention for reasons set out extensively above. Ruszczyk is directed to a method of scheduling higher and lower priority data packets as set out in Ruszczyk's abstract:

As the network device receives data packets, the network device places data packets into a first queue and sorts the data packets as higher priority and lower priority data packets based upon a transmission deadline of each data packet.

This has nothing to do with power pooling and network downstream data transmission as defined in applicants' claims.

The rejection of claims 26 and 31-34 under 35 U.S.C. §112, first paragraph, is respectfully traversed.

Claim 31 has been cancelled.

Claim 32 finds support for identifying delays in the specification at page 2, line 22 *et seq.*


Claim 33 has been cancelled.

Support for the language of claim 34: "the number of times the respective packet has been delayed" is found in the specification at page 3, second and third full paragraphs.

The rejection of claims 4, 10, 28, 34, 37 and 39 under 35 U.S.C. §112 has been avoided by amendment to the claims.

In view of the above, further and favorable reconsideration is respectfully requested.

Respectfully submitted,


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In the event this paper is deemed not timely filed, the applicant hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 26-0090 along with any other additional fees which may be required with respect to this paper and this application.